

3. A row decoder for applying a select voltage and a non-select voltage to select word lines and non-select word lines of a nonvolatile semiconductor storage device, the select word lines and the non-select word lines being
5 determined according to an address signal, on a mode-by-mode basis for each of a program mode, a read mode and an erase mode, the row decoder comprising:

control voltage output means for, on the mode-by-mode basis, outputting a control voltage responsive to
10 select/non-select information which is determined according to the address signal;

select voltage output means for, on the mode-by-mode basis, outputting a select voltage responsive to a select state which is determined according to the address
15 signal;

non-select voltage output means for, on the mode-by-mode basis, outputting a non-select voltage responsive to a non-select state which is determined according to the address signal; and

20 applied voltage select means for, in the erase mode, selecting either one of the select voltage derived from the select voltage output means or the non-select voltage derived from the non-select voltage output means according to the control voltage derived from the control
25 voltage output means, and outputting the selected voltage

to select word lines while outputting the non-selected voltage to non-select word lines.

4. A row decoder for applying a select voltage and a non-select voltage to select word lines and non-select word lines of a nonvolatile semiconductor storage device, the select word lines and the non-select word lines being determined according to an address signal, on a mode-by-mode basis for each of a program mode, a read mode and an erase mode, the row decoder comprising:

control voltage output means for, on the mode-by-mode basis, outputting a control voltage responsive to select/non-select information which is determined according to the address signal;

high voltage output means for, on the mode-by-mode basis, outputting a high voltage not less than a specified voltage responsive to a select state which is determined according to the address signal;

low voltage output means for, on the mode-by-mode basis, outputting a low voltage lower than the high voltage responsive to a non-select state which is determined according to the address signal; and

applied voltage select means for, in the erase mode, selecting either one of the high voltage derived from the high voltage output means or the low voltage derived from the low voltage output means according to the control

voltage derived from the control voltage output means, and outputting the high voltage to select word lines as the select voltage while outputting the low voltage to non-select word lines as the non-select voltage.

5 5. The row decoder according to Claim 3, wherein
in the erase mode, the select voltage is a
positive voltage, while the non-select voltage is a
negative voltage; and

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10 91 an absolute value of the non-select voltage is
not larger than an absolute value of the negative voltage
applied to the substrate or well of the nonvolatile
semiconductor storage device.

6. The row decoder according to Claim 4, wherein
in the erase mode, the select voltage is a
15 positive voltage, while the non-select voltage is a
negative voltage; and

an absolute value of the non-select voltage is
not larger than an absolute value of the negative voltage
applied to the substrate or well of the nonvolatile
20 semiconductor storage device.